UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/767,980 | 01/29/2004 | James William Fahrny | CCCI 0128 PUS | 5334 |

50764 7590 03/15/2007

BROOKS KUSHMAN P.C.
1000 TOWN CENTER
TWENTY-SECOND FLOOR
SOUTHFIELD, MI 48075

| EXAMINER | |
|---|---|
| GYORFI, THOMAS A | |
| ART UNIT | PAPER NUMBER |
| 2135 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|---|---|---|
| 3 MONTHS | 03/15/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/767,980 | FAHRNY ET AL. | |
| | Examiner | Art Unit | |
| | Tom Gyorfi | 2135 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/8/04, 9/22/05, & 3/23/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. Claims 1-28 are pending examination.

### *Information Disclosure Statement*

2. The information disclosure statement (IDS) submitted on 4/8/04, 9/22/05, and 3/23/06 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6, 8, 9, 11-16, 19-24, and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Pinder et al. (U.S. Patent 6,424,717).

Regarding claims 1 and 11:

Pinder discloses a method and system for multi-stream security processing and distributing digital media streams comprising: a head-end configured to generate encrypted digital media streams (element 515 of Figure 5); a network coupled to the head-end and configured to receive the encrypted digital media streams (elements 517/523 of Figure 5); and at least one receiver coupled to the network and configured to

receive the encrypted digital media streams and present a decrypted version of the encrypted media streams, wherein at least one of the head-end and the at least one receiver comprise a security processor configured to provide at least one of the simultaneous multiple encryption and decryption processing of the streams (col. 4, lines 30-50).

Regarding claim 20:

Pinder discloses a security processor comprising a controller (col. 10, lines 55-65) and a plurality of digital stream encryption/decryption engines that are selectively parallel coupled by the controller for simultaneous operation in response to a predetermined security configuration (elements 234, 236, and 238 of Figure 2B; col. 7, lines 1-15).

Regarding claims 2, 12, and 21:

Pinder further discloses wherein the media streams are at least one of a video stream, audio stream, or video plus audio stream (e.g. col. 6, lines 15-20; Fig. 7).

Regarding claims 3 and 13:

Pinder further discloses wherein the security processor further comprises a plurality of digital stream encryption/decryption engines that are selectively parallel coupled by the controller for simultaneous operation in response to a predetermined security configuration (elements 234, 236, and 238 of Figure 2B; col. 7, lines 1-15).

Regarding claims 4, 14, and 22:

Pinder further discloses wherein the security configuration comprises at least one of DES, Triple-DES, AES, and CSA (col. 5, lines 10-15; col. 6, lines 45-50).

Regarding claims 5, 15, and 23:

Pinder further discloses wherein the security configuration management comprises at least one of a secure download, RSA key management, multiple security key management, authentication, copy protection, and digital signatures (e.g. col. 6, lines 50-65).

Regarding claims 6, 16, and 24:

Pinder further discloses wherein the security processor further comprises at least one of a memory containing a hash, engine encryption/decryption configuration logic, a random number generator, a multiplier, and a memory containing a dynamic feedback arrangement scrambling technique (DFAST) algorithm coupled in parallel to the controller and configured to provide multiple key management for at least one of conditional access and digital rights management (e.g. col. 6, lines 25-30).

Regarding claims 8, 19, and 27:

Pinder further discloses wherein the security processor provides a role-based authentication that is used by an authorized user for at least one of configuration, reconfiguration, and renewal (col. 10, lines 5-25).

Regarding claims 9 and 28:

Pinder further discloses wherein the receiver is at least one of a set-top box (STB), and a receiver or transceiver for at least one of digital television, HDTV, audio, MP3, text messaging, and game digital streams (col. 7, lines 25-32).

Regarding claim 26:

Pinder further discloses wherein the system for multistream security processing and distributing digital media streams comprises a headend (element 515 of Figure 5), a network electrically coupled to the headend, a set-top box (STB) coupled to the network (elements 517/523 of Figure 5), and a receiver coupled to the STB, and the security processor is implemented in connection with at least one of the headend, the network, the STB, and the receiver (col. 4, lines 30-50).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 7, 17, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinder as applied to claims 1, 11, and 20 above, and further in view of the Applicant-supplied reference "POD Copy Protection System" (hereinafter, "Cablecard").

Regarding claims 7, 17, and 25:

Although Pinder discloses both RAM and flash memory containing the predetermined security secrets (col. 47, lines 10-15), it does not explicitly recite wherein the memory is swappable. However, Cablecard discloses a system wherein the security secrets can be stored on the memory of a swappable component (page 7, "Historical Perspective"; secrets at Table 4.2-A for example). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the security functions of the set-top box on a swappable memory card. The motivation for doing so would be to allow for unscrambling of digital cable streams (Cablecard, page 1, "1.1 Scope", 1st paragraph). It is additionally noted that making this change would allow one to remain in compliance with U.S. laws and regulations in effect at the time the invention was made (see the enclosed FCC reference).

7. Claims 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinder as applied to claims 1 and 11 above, and further in view of "HDCP: what it is and how to use it" (hereinafter, "HDCP").

Regarding claim 10:

Pinder discloses a set-top box receiver (col. 4, lines 30-50) and an additional receiving device including the security processor (the "intelligent" television, col. 7, lines 28-35), which can be configured to receive and decrypt encrypted digital media streams using the security processor. However, Pinder does not appear to disclose wherein the

STB and intelligent television are coupled to each other. Regardless, HDCP discloses that a set-top box and a television can be coupled to each other, each containing a security processor that encrypts and decrypts content over the link between those devices (HDCP, page 1, "System Architecture"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to couple an STB and television in such a way as to allow the STB to transmit encrypted media streams to the television. The motivation for doing so would be to protect copyrighted media without infringing on customer-demanded features (page 1, "What HDCP is—and isn't").

Regarding claim 18:

Although Pinder discloses coupling an additional receiving device to the receiver (col. 4, lines 30-35), Pinder does not appear to disclose presenting the encrypted digital media streams from the receiver to the additional receiving device, whereupon the streams are decrypted using the additional receiving device's security processor. However, HDCP discloses that a set-top box and a television can be coupled to each other, each containing a security processor that encrypts and decrypts content over the link between those devices (HDCP, page 1, "System Architecture"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to couple an STB and television in such a way as to allow the STB to transmit encrypted media streams to the television. The motivation for doing so would be to protect copyrighted media without infringing on customer-demanded features (page 1, "What HDCP is—and isn't", particularly the first two paragraphs).

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: the "FCC News" article establishes that U.S. laws and regulations required that security functions be separate from non-security functions by 7/1/2000, thus further suggesting the combination of references in claims 7, 17, and 25.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Gyorfi whose telephone number is (571) 272-3849. The examiner can normally be reached on 8:30am - 5:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TAG
3/12/07

KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100